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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/426,579	10/25/1999	RICHARD G. BEDNAR	EN999023	2074

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EXAMINER

CHUNG, DANIEL J

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 03/12/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/426,579

Applicant(s)

BEDNAR ET AL.

Examiner

Daniel J Chung

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 and 22-30 is/are allowed.
- 6) ☒ Claim(s) 1-5, 14-19 and 21 is/are rejected.
- 7) ☒ Claim(s) 6-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-30 are presented for examination. Claims 26-30 have been added by the amendment filed on 12-18-2003. This office action is in response to the amendment filed on 12-18-2003.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 14-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pendred (U.S 3,600,513) in view of Snead et al (6,333,741).

Regarding claim 1, Pendred discloses that the claimed feature of a method for filling a polygon with a minimum number of rectangles, comprising: bordering polygon [i.e. "border or outline image"; 80], including: selecting a starting border width [i.e. "distance d" in Fig 9]; and merging border segments where possible [i.e. corners of border or outline image 80]; and then orthogonally filling. (See Fig 4-5, Fig 7, Fig 9, col 1 line 35-59, col 1 line 68-col 2 line 19, col 6 line 35-53, col 6 line 72-col 7 line 17)

Pendred does not specifically disclose that "merging border segments", as recited in claim. However, such limitation is shown in the teaching of Snead et al. (See Abstract, Fig 16, Fig 29a-Fig 30d, Fig 33, col 5 line 60-col 6 line 17) It would have been obvious to one skilled in the art to incorporate the teaching of Snead et al into the teaching of Pendred, in order to fill polygons at faster processing time by eliminating undesirable regions in polygons, as such improvement is also advantageously desirable in the teaching of Pendred for providing the artwork tool to form the image at reduced time. (See Abstract)

Regarding claim 2, refer to the discussion for the claim 1 hereinabove, Pendred discloses that the claimed feature of a method for filling an original polygon envelope with a minimum number of stripes, comprising: creating a border polygon [80] including a plurality of border segments; merging border segments where possible; and thereafter switching to generating orthogonal fill stripes ["rectangular or bar-shaped images"]; (See Fig 4-5, Fig 7, Fig 9, col 1 line 35-59, col 1 line 68-col 2 line 19, col 6 line 35-53, col 6 line 72-col 7 line 17) and processing uncovered areas. (See col 2 line 11-13, col 7 line 23-28, col 8 line 9-17) (Also Abstract, Fig 16, Fig 29a-Fig 30d, Fig 33, col 5 line 60-col 6 line 17, i.e. filling process in Fig 31d are processed after bordering process, which described in Fig 31b-c)

Regarding claim 3, Pendred discloses that receiving input parameters [30,32,300], input parameters including parameters defining a minimum stripe width, a

maximum stripe width, and a merge adjacent borders flag. (See col 1 line 43-51, col 1 line 63-65, col 2 line 4-8, col 4 line 28-54)

Regarding claim 4, Pendred discloses that input parameters further including stripe overlap amount. (See Fig 9, col 1 line 38-50, col 2 line 4-8)

Regarding claim 5, Pendred discloses that input parameters further including wire with ends size delta, and maximum number of borders. (See Fig 9, col 1 line 43-51, col 1 line 63-65, col 2 line 4-8, col 4 line 28-54)

Regarding claims 14-19 and 21, claims 14-19 and 21 are similar in scope to the claims 1-3, and thus the rejections to claims 1-3 hereinabove are also applicable to claims 14-19 and 21.

Response to Arguments/Amendments

Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection. Specifically, in response to the applicant's argument that the cited reference does not disclose "merging border segments", the newly submitted reference (Snead et al (US 6,333,741)) clearly discloses the merging process of border segments in an analogous art (polygon filling operation). Since both systems suggest for providing a method for filling a polygon at

reduced processing time, it would have been obvious to one skilled in the art to incorporate the bordering step of Snead into the teaching of Pendred.

Allowable Subject Matter

Claims 20 and 22-30 are allowed.

Claims 6-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The present invention is directed to a method for filling a polygon with a minimum number of rectangles. The above claims identifies the uniquely distinct features "calculating the length of each side of current polygon; deriving a smallest side length parameter equal to the larger of a first factor times minimum stripe width or the length of the shortest side obtained from step for calculating length; setting smallest side length parameter from deriving step to a reduced amount by a second factor; if current polygon is an inner border and smallest side length parameter is less than the previous border width, setting smallest side length equal to previous border width; if smallest side length parameter is greater than maximum stripe width parameter, setting smallest side length parameter equal to maximum strip width parameter; and returning smallest side length parameter for processing as maximum current polygon border width parameter". The closest prior art, Frei (US 5,159,201) and Pendred (US

3,600,513) discloses a similar system, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Chung whose telephone number is (703) 306-3419. He can normally be reached Monday-Thursday and alternate Fridays from 7:30am- 5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael, Razavi, can be reached at (703) 305-4713.

Any response to this action should be mailed to:

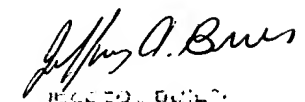
Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.


JEFFERY BRIER
PRIMARY EXAMINER

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djc
March 7, 2004